

according to Regulation (EC) No 1907/2006

# Buffer solution pH 10 54 g NH4CI + 350 ml NH3-solution 17 %/I for complexometric titration

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Buffer solution pH 10 54 g NH4Cl + 350 ml NH3-solution 17 %/l for complexometric titration

GDFJ-210R-100Y-7WN5

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

#### Uses advised against

Do not use for private purposes (household).

### 1.3. Details of the supplier of the safety data sheet

AnalytiChem GmbH Company name: Street: Stempelstraße 6 Place: D-47167 Duisburg

Telephone: 0203/5194-0 Telefax: 0203/5194-290

info@analytichem.de E-mail:

Abteilung Produktsicherheit Contact person: Telephone: 0203/5194-107/117

E-mail: produktsicherheit@analvtichem.de

www.analvtichem.de Internet:

Abteilung Produktsicherheit Responsible Department:

1.4. Emergency telephone For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,

Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: number:

1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls

accepted)

### **Further Information**

This product is a mixture. REACH Registration Number see section 3.

# **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

### Regulation (EC) No 1272/2008

Skin Corr. 1B; H314 Eye Dam. 1; H318 **STOT SE 3; H335** Aquatic Acute 1; H400 Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

# Regulation (EC) No 1272/2008

### Hazard components for labelling

Ammonia

Signal word: Danger

Pictograms:









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#### Hazard statements

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

#### **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves and eye/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

#### 2.3. Other hazards

No data available

### **SECTION 3: Composition/information on ingredients**

### 3.2. Mixtures

### **Chemical characterization**

Mixtures in aqueous solution

### Relevant ingredients

| CAS No     | Chemical name   |              |                  |            |  |
|------------|---|--------------|------------------|------------|--|
|            | EC No   | Index No     | REACH No         |            |  |
|            | Classification (Regulation (EC) N                                 | 0 1272/2008) |                  |            |  |
| 1336-21-6  | Ammonia   |              |                  | 5 - < 10 % |  |
|            | 215-647-6   | 007-001-01-2 | 01-2119488876-14 |            |  |
|            | Skin Corr. 1B, Aquatic Acute 1, Aquatic Chronic 2; H314 H400 H411 |              |                  |            |  |
| 12125-02-9 | ammonium chloride   |              |                  | 5 - < 10 % |  |
|            | 235-186-4   | 017-014-00-8 | 01-2119487950-27 |            |  |
|            | Acute Tox. 4, Eye Irrit. 2; H302 H                                | 319          |                  |            |  |

Full text of H and EUH statements: see section 16.

# Specific Conc. Limits, M-factors and ATE

| openie cener zimite) in ractore and 712 |  |   |            |  |  |
|---|--|---|------------|--|--|
| CAS No                                  | EC No  | Chemical name                                     |            |  |  |
|   | Specific Conc. I                                     | Conc. Limits, M-factors and ATE                   |            |  |  |
| 1336-21-6                               | 215-647-6  | Ammonia   | 5 - < 10 % |  |  |
|   | inhalation: LC5<br>Aquatic Acute 1                   | C50 = 4230 mg/l (vapours); oral: LD50 = 350 mg/kg |            |  |  |
| 12125-02-9                              | 235-186-4  | ammonium chloride                                 | 5 - < 10 % |  |  |
|   | dermal: LD50 = > 2000 mg/kg; oral: LD50 = 1410 mg/kg |   |            |  |  |

### **Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

### **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

#### **General information**

Self-protection of the first aider



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Avoid contact with skin, eyes and clothes.

Take off immediately all contaminated clothing.

### After inhalation

Provide fresh air.

Call a physician immediately.

### After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

#### After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

## After ingestion

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting.

Do not allow a neutralisation agent to be drunk.

Call a physician immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

Irritant

Corrosion

Cough

Dyspnoea

Gastrointestinal complaints

gastric perforation

Unconsciousness

Vomiting

Circulatory collapse

**Spasms** 

Pulmonary oedema

Risk of serious damage to eyes.

# 4.3. Indication of any immediate medical attention and special treatment needed

No data available

### **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

### Unsuitable extinguishing media

no restriction

### 5.2. Special hazards arising from the substance or mixture

Non-combustible liquids

Formation of explosive mixtures with: Air

Hazardous combustion products

In case of fire may be liberated:

Nitrogen oxides (NOx)

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.



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#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

#### **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

**Emergency procedures** 

Do not breathe dust/fume/gas/mist/vapours/spray.

#### For emergency responders

Precautionary statements For emergency responders: Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

### 6.3. Methods and material for containment and cleaning up

### For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

### For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

### Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

### Advice on safe handling

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff.

Use personal protection equipment. Use extractor hood (laboratory).

Provide adequate ventilation. Do not breathe vapour/aerosol.

Avoid contact with skin, eyes and clothes.

### Advice on protection against fire and explosion

Usual measures for fire prevention.

Formation of explosive mixtures with: Air

#### Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.



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### Further information on handling

Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary.

Take off immediately all contaminated clothing and wash it before reuse.

## 7.2. Conditions for safe storage, including any incompatibilities

### Requirements for storage rooms and vessels

Keep container tightly closed.

Corrosive to metals.

Unsuitable container/equipment material: Metal, Light metal

### Further information on storage conditions

Keep cool. Protect from sunlight.

### 7.3. Specific end use(s)

Laboratory chemicals

## **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

### Occupational exposure limits

| CAS No     | Substance               | ppm | mg/m³ | fib/cm³ | Category      | Origin |
|------------|-------------------------|-----|-------|---------|---------------|--------|
| 7664-41-7  | Ammonia, anhydrous      | 20  | 14    |         | TWA (8 h)     |        |
|            |                         | 50  | 36    |         | STEL (15 min) |        |
| 12125-02-9 | Ammonium chloride, fume | -   | 10    |         | TWA (8 h)     |        |
|            |                         | -   | 20    |         | STEL (15 min) |        |



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### **DNEL/DMEL values**

| CAS No                   | Substance         |                |          |                      |
|--------------------------|-------------------|----------------|----------|----------------------|
| DNEL type                | Cabotaneo         | Exposure route | Effect   | Value                |
| 1336-21-6                | Ammonia           |                |          |                      |
| Worker DNEL,             | long-term         | inhalation     | systemic | 47,6 mg/m³           |
| Worker DNEL,             | acute             | inhalation     | systemic | 47,6 mg/m³           |
| Worker DNEL,             | long-term         | inhalation     | local    | 14 mg/m³             |
| Worker DNEL,             | acute             | inhalation     | local    | 36 mg/m³             |
| Worker DNEL,             | long-term         | dermal         | systemic | 6,8 mg/kg bw/day     |
| Worker DNEL,             | acute             | dermal         | systemic | 6,8 mg/kg bw/day     |
| Consumer DN              | EL, long-term     | inhalation     | systemic | 23,8 mg/m³           |
| Consumer DN              | EL, acute         | inhalation     | systemic | 23,8 mg/m³           |
| Consumer DN              | EL, long-term     | inhalation     | local    | 2,8 mg/m³            |
| Consumer DN              | EL, acute         | inhalation     | local    | 7,2 mg/m³            |
| Consumer DN              | EL, long-term     | dermal         | systemic | 68 mg/kg bw/day      |
| Consumer DN              | EL, acute         | dermal         | systemic | 68 mg/kg bw/day      |
| Consumer DN              | EL, long-term     | oral           | systemic | 6,8 mg/kg bw/day     |
| Consumer DN              | EL, acute         | oral           | systemic | 6,8 mg/kg bw/day     |
| 12125-02-9               | ammonium chloride |                |          |                      |
| Consumer DN              | EL, long-term     | inhalation     | systemic | 9,9 mg/m³            |
| Consumer DNEL, long-term |                   | dermal         | systemic | 114 mg/kg bw/day     |
| Consumer DNEL, long-term |                   | oral           | systemic | 11,4 mg/kg<br>bw/day |
| Worker DNEL, long-term   |                   | inhalation     | systemic | 33,5 mg/m³           |
| Worker DNEL, long-term   |                   | dermal         | systemic | 190 mg/kg bw/day     |

# **PNEC** values

| CAS No   | Substance           |            |  |
|--|---------------------|------------|--|
| Environmental compartment Value                  |                     |            |  |
| 1336-21-6  | Ammonia             |            |  |
| Freshwater                                       |                     | 0,001 mg/l |  |
| Freshwater (in                                   | ermittent releases) | 0,007 mg/l |  |
| Marine water 0,001 mg/l                          |                     | 0,001 mg/l |  |
| 12125-02-9                                       | ammonium chloride   |            |  |
| Freshwater 1,2 mg/l                              |                     | 1,2 mg/l   |  |
| Freshwater (intermittent releases) 1,2 mg/l      |                     | 1,2 mg/l   |  |
| Marine water 11,2 mg/l                           |                     | 11,2 mg/l  |  |
| Micro-organisms in sewage treatment plants (STP) |                     | 16,2 mg/l  |  |
| Soil 0,163 mg/kg                                 |                     |            |  |

# 8.2. Exposure controls

### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment



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### Eye/face protection

goggles

Wear eye/face protection.

### **Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L
Recommended material: NBR (Nitrile rubber) 0,11 mm
Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L
Recommended material: NBR (Nitrile rubber) 0,11 mm
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

### Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

### **Respiratory protection**

Respiratory protection necessary at: aerosol or mist formation

#### **Environmental exposure controls**

Do not allow to enter into surface water or drains.

### **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: colourless
Odour: stinging

Odour threshold: No data available

Melting point/freezing point:

Boiling point or initial boiling point and

No data available

No data available

boiling range:

Flammability: No data available
Lower explosion limits: No data available
Upper explosion limits: No data available
Flash point: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available



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pH-Value (at 20 °C):

Viscosity / kinematic:

Water solubility:

No data available completely miscible

Solubility in other solvents

No data available

Dissolution rate: No data available No data available Partition coefficient n-octanol/water: Dispersion stability: No data available No data available Vapour pressure: Vapour pressure: No data available Density: 0.996 a/cm3 Relative density: No data available Bulk density: No data available Relative vapour density: No data available No data available Particle characteristics:

#### 9.2. Other information

### Information with regard to physical hazard classes

Explosive properties

No data available

Sustaining combustion:

No data available

Self-ignition temperature

Solid: No data available
Gas: No data available

Oxidizing properties

No data available

### Other safety characteristics

Evaporation rate:

Solvent separation test:

No data available

No data available

No data available

Solvent content:

0

Solid content:

0

Sublimation point:

Softening point:

No data available

No data available

Pour point:

No data available

No data available

No data available:

Viscosity / dynamic:

Flow time:

No data available

No data available

# Further Information No data available

### **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

No data available

### 10.2. Chemical stability

Formation of explosive mixtures with: Air

### 10.3. Possibility of hazardous reactions

Oxidising agent, mercury (Hg)., Oxygen, Hydrogen peroxide, Acid, Chlorine, Heavy metals, Nitric acid, Bromine, Hydrogen bromide (HBr), Hydrochloric gas, Nitrogen oxides (NOx), Hydrogen fluoride, Carbon dioxide,

### 10.4. Conditions to avoid

Heat



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### 10.5. Incompatible materials

Metal, Aluminium, Lead nickel, silver, Zinc Copper

### 10.6. Hazardous decomposition products

In case of fire may be liberated: SECTION 5: Firefighting measures

### **Further information**

No data available

# **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Toxicocinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

#### **Acute toxicity**

Based on available data, the classification criteria are not met.

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

#### **ATEmix** calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

| CAS No     | Chemical name           |               |           |         |  |   |  |
|------------|-------------------------|---------------|-----------|---------|--|---|--|
|            | Exposure route          | Dose          |           | Species | Source   | Method                                  |  |
| 1336-21-6  | Ammonia                 |               |           |         |  |   |  |
|            | oral                    | LD50<br>mg/kg | 350       | Rat     | Journal of Industrial<br>Hygiene and Toxico    | OECD Guideline 401                      |  |
|            | inhalation (1 h) vapour | LC50          | 4230 mg/l | Mouse   | Bull. Environm.<br>Contam. Toxicol,<br>1982, 2 | Assessment of acute inhalation toxicity |  |
| 12125-02-9 | ammonium chloride       |               |           |         |  |   |  |
|            | oral                    | LD50<br>mg/kg | 1410      | Rat     | Other company data (1983)                      | other: not mentioned                    |  |
|            | dermal                  | LD50<br>mg/kg | > 2000    | Rat     | Study report (2010)                            | EU Method B.3                           |  |

### Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

### Sensitising effects

Based on available data, the classification criteria are not met.

### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

### STOT-single exposure

May cause respiratory irritation. (Ammonia)

# STOT-repeated exposure

Based on available data, the classification criteria are not met.

#### **Aspiration hazard**

Based on available data, the classification criteria are not met.

### Information on likely routes of exposure

There are no data available on the preparation/mixture itself.



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### Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

### Additional information on tests

There are no data available on the preparation/mixture itself.

#### **Practical experience**

There are no data available on the preparation/mixture itself.

### 11.2. Information on other hazards

### **Endocrine disrupting properties**

There are no data available on the preparation/mixture itself.

### Other information

Irritant

Corrosion

Cough

Dyspnoea

Gastrointestinal complaints

gastric perforation

Unconsciousness

Vomiting

Circulatory collapse

Spasms

Pulmonary oedema

Risk of serious damage to eyes.

# **SECTION 12: Ecological information**

### 12.1. Toxicity

Very toxic to aquatic life.

Harmful to aquatic life with long lasting effects.



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| CAS No     | Chemical name            |                  |          |           |                               |  |  |  |  |  |
|------------|--------------------------|------------------|----------|-----------|-------------------------------|--|--|--|--|--|
|            | Aquatic toxicity         | Dose             |          | [h]   [d] | Species                       | Source   | Method   |  |  |  |
| 1336-21-6  | Ammonia                  |                  |          |           |                               |  |  |  |  |  |
|            | Acute fish toxicity      | LC50<br>3,4 mg/l | 0,75 -   | 96 h      | Pimephales promelas           | Trans Amer Fish<br>Soc; 112 (5).<br>1983. 705- | Assessment of acute toxicity in the fath       |  |  |  |
|            | Acute crustacea toxicity | EC50             | 101 mg/l | 48 h      | Daphnia magna                 | Environ. Toxicol.<br>Chem. 5: 443-447<br>(1986 | other: ASTM<br>E729-80                         |  |  |  |
|            | Fish toxicity            | NOEC             | 1,2 mg/l | 61 d      | Oncorhynchus<br>gorbuscha     | Fish. Bull. 78(3):<br>641-648 (1980)           | OECD Guideline<br>210                          |  |  |  |
| 12125-02-9 | ammonium chloride        |                  |          |           |                               |  |  |  |  |  |
|            | Acute fish toxicity      | LC50             | 209 mg/l | 96 h      | Cyprinus carpio               | Indian J. Environ.<br>Health,<br>17, 140-146,  | other:<br>E03-05:APHA,<br>AWWA & WPCF          |  |  |  |
|            | Acute crustacea toxicity | EC50             | 101 mg/l | 48 h      | Daphnia magna                 | Env. Tox. Chem.<br>5, 443-447 (1986)<br>(1986) | other: ASTM<br>E729-80                         |  |  |  |
|            | Fish toxicity            | NOEC<br>mg/l     | 11,8     | 28 d      | Pimephales promelas           | Env.Tox. Chem. 5,<br>437-442 (1986)<br>(1986)  | other: - American<br>Society for<br>Testing an |  |  |  |
|            | Algae toxicity           | NOEC<br>mg/l     | 26,8     | 10 d      | Navicula sp.                  | Mar. Biol. 43(4),<br>307-315, (1977)<br>(1977) | no data  |  |  |  |
|            | Crustacea toxicity       | NOEC<br>mg/l     | 14,6     | 21 d      | Daphnia magna                 | Env. Tox. Chem.<br>5, 443-447 (1986)<br>(1986) | other: not<br>mentioned                        |  |  |  |
|            | Acute bacteria toxicity  | EC50<br>mg/l ( ) | 1618     | 0,5 h     | activated sludge,<br>domestic | Study report<br>(1988)                         | OECD Guideline<br>209                          |  |  |  |

### 12.2. Persistence and degradability

There are no data available on the mixture itself.

### 12.3. Bioaccumulative potential

There are no data available on the mixture itself.

### Partition coefficient n-octanol/water

| CAS No    | Chemical name | Log Pow |
|-----------|---------------|---------|
| 1336-21-6 | Ammonia       | -1,38   |

### 12.4. Mobility in soil

There are no data available on the mixture itself.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### **Further information**

Do not allow to enter into surface water or drains.

Discharge into the environment must be avoided.

## **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods



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### **Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not allow to enter into surface water or drains.

#### Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

### **SECTION 14: Transport information**

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

#### Inland waterways transport (ADN)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

### Marine transport (IMDG)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

### Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

### 14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

### **SECTION 15: Regulatory information**

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### **EU** regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

Information according to Directive 2012/18/EU (SEVESO III):

E1 Hazardous to the Aquatic Environment

### **National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or

nursing mothers.



according to Regulation (EC) No 1907/2006

# Buffer solution pH 10 54 g NH4CI + 350 ml NH3-solution 17 %/I for complexometric titration

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Water hazard class (D): 2 - obviously hazardous to water

#### **SECTION 16: Other information**

#### Changes

This data sheet contains changes from the previous version in section(s): 1,12.

#### Abbreviations and acronyms

Acute Tox: Acute toxicity Skin Corr: Skin corrosion Eve Dam: Eve damage Eve Irrit: Eve irritation

STOT SE: Specific target organ toxicity - single exposure

Aquatic Acute: Acute aquatic hazard Aquatic Chronic: Chronic aquatic hazard

#### Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

| Classification          | Classification procedure |
|-------------------------|--------------------------|
| Skin Corr. 1B; H314     | Calculation method       |
| Eye Dam. 1; H318        | Calculation method       |
| STOT SE 3; H335         | Calculation method       |
| Aquatic Acute 1; H400   | Calculation method       |
| Aquatic Chronic 3; H412 | Calculation method       |

#### Relevant H and EUH statements (number and full text)

| H302  | Harmīui iī swallowed.                            |
|-------|--|
| H314  | Causes severe skin burns and eye damage.         |
| H318  | Causes serious eye damage.                       |
| H319  | Causes serious eye irritation.                   |
| H335  | May cause respiratory irritation.                |
| H400  | Very toxic to aquatic life.                      |
| H411  | Toxic to aquatic life with long lasting effects. |
| LI412 | Harmful to aquatia life with long lecting offect |

H412 Harmful to aquatic life with long lasting effects.

#### **Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)